## WO 2004/039290 PCT/GB2003/004692 CLAIMS

1. A device for retrieval of a foreign body from a vessel of a patient, which device comprises: a flexibly resilient central shaft having an axial channel for receiving a guidewire therein; balloon support means extending from the central shaft and having a free end spaced therefrom; and inflatable balloon means provided at said free end and arranged to expand inwardly towards the central shaft upon inflation; whereby in use the device is positioned such that a foreign body to be retrieved is located between said free end and said central shaft, and the balloon means is subsequently inflated to bear against the foreign body and hold it against the central shaft, such that the combined foreign body and device can be withdrawn from the vessel.

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- 2. A device as claimed in claim 1, wherein the foreign body is an undeployed stent; and whereby in use the balloon means is inflated to bear against the outer circumference of the stent and hold the stent against the central shaft.
- 3. A device for retrieval of an undeployed stent from a vessel of a patient, which device comprises: a central shaft having an axial channel for receiving an angioplasty guidewire therein; balloon support means extending from the central shaft and having a free end spaced therefrom; and inflatable balloon means provided at said free end and arranged to expand inwardly towards the central shaft upon inflation; whereby in use the device is positioned such that an undeployed stent is located between said free end and said central shaft, and the balloon means is subsequently inflated to bear against the outer

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circumference of the stent and hold the stent against the central shaft,

such that the combined stent and device can be withdrawn from the

vessel.

- 4. A device as claimed in claim 2 or claim 3, wherein the inflatable balloon means is arranged so as in use to bear against the stent at two or more spaced locations around the circumference thereof.
  - 5. A device as claimed in any of the preceding claims, wherein the central shaft is flexibly resilient and has a tip extending beyond the free end of the balloon support means.
- 10 6. A device as claimed in any of the preceding claims, wherein the inflatable balloon means is generally annular.
  - 7. A device as claimed in any of the preceding claims, wherein the balloon support means is a generally cylindrical sleeve extending axially of the central shaft.
- 8. A device as claimed in any claims 5 to 7, wherein the central shaft is generally cylindrical, having a uniform diameter along most of its length, and a short tapering section towards its tip.
  - 9. A device as claimed in any of the preceding claims, further comprising a hub at an end of the central shaft distal from the inflatable balloon means.

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- 10. A device as claimed in claim 9 wherein the hub has a port in fluid communication with the balloon to enable inflation thereof by injection of an inflation fluid.
- 11. A device as claimed in claim 10 wherein the port is adapted toreceive a syringe from which the inflation fluid is to be delivered.

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12. A device as claimed in claim 10 or claim 11 wherein the inflation fluid is of radiographic contrast.

- 13. A device as claimed in any of claims 10 to 12, wherein the inflation of the balloon is effected by the injection of substantially 2 to 5 ml of inflation fluid.
- 14. A device as claimed in any of the preceding claims, said device being adapted for delivery into and recovery from a vessel by means of a guiding catheter.
- 15. A device as claimed in any of the preceding claims, further
  comprising a guiding catheter for delivery of the device into a vessel,
  and subsequent recovery of the device therefrom.